

Features of reflection at limiting range of one-hop radio-waves propagation from Es layer

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Abstract

Sporadic E layer has essential influences on propagation of radio waves in decametric range, both expanding range of working frequencies, and shielding reflection of radio waves from overlying ionosphere. In report considered reflection of radio waves from Es layer on a line Cyprus-Kazan in the extent of 2600 km, at range of propagation limiting one-hop reflection for heights of arrangement of layer. Researches were spent by method of LFM sounding. The explanation of received results on expansion of usable range made on the basis of modeling reflections from spatial gradients of density of electronic concentration in Es layer. © 2011 IEEE.

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